

DERWENT-ACC-NO: 2002-608659

DERWENT-WEEK: 200427

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TITLE: Aqueous primary dispersion for coating,
adhesive and sealing materials, is obtained by micro- or
mini-emulsion polymerisation in presence of hydrophobic
additive and oligomeric polyester

INVENTOR: CLAUSS, R; FREITAG, N ; LOCKEN, W ; MIKOLAJETZ, D ;
NICKOLAUS, R
; RINK, H ; WESSLING, E ; LOECKEN, W

PATENT-ASSIGNEE: BASF COATINGS AG[BADI] , MIKOLAJETZ D[MIKOI]

PRIORITY-DATA: 2001DE-1006567 (February 13, 2001)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE
PAGES MAIN-IPC		
AU 2002234631 A1	August 28, 2002	N/A
000 C08F 283/02		
WO <u>200264652</u> A1	August 22, 2002	G
061 C08F 283/02		
DE 10106567 A1	August 22, 2002	N/A
000 C09D 005/02		
EP 1368396 A1	December 10, 2003	G
000 C08F 283/02		
US 20040048968 A1	March 11, 2004	N/A
000 C08K 003/20		

DESIGNATED-STATES: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO
CR CU CZ
DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK
LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE
SG SI SK
SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW AT BE CH CY DE DK EA
ES FI FR
GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM
ZW AL AT
BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
TR

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
AU2002234631A1	N/A	2002AU-0234631
February 13, 2002		
AU2002234631A1	Based on	WO 200264652
N/A		
WO 200264652A1	N/A	2002WO-EP01461
February 13, 2002		
DE 10106567A1	N/A	2001DE-1006567
February 13, 2001		
EP 1368396A1	N/A	2002EP-0701273
February 13, 2002		
EP 1368396A1	N/A	2002WO-EP01461
February 13, 2002		
EP 1368396A1	Based on	WO 200264652
N/A		
US20040048968A1	N/A	2002WO-EP01461
February 13, 2002		
US20040048968A1	N/A	2003US-0250586
July 2, 2003		

INT-CL (IPC): C08F002/22, C08F283/02 , C08K003/20 , C09D005/02 ,
 C09D005/29 , C09D005/34 , C09D133/10 , C09D151/06 , C09D151/08 ,
 C09J151/06 , C09J151/08

ABSTRACTED-PUB-NO: WO 200264652A

BASIC-ABSTRACT:

NOVELTY - Aqueous primary dispersions with a particle size of not more than 500 nm and with no volatile organics content, is obtained by radical micro- or mini-emulsion polymerization of unsaturated monomers in presence of hydrophobic additives and oligomeric polyesters with a mol. wt. of 150-1500, an OH number of 100-1000 and an acid number of less than 20.

DETAILED DESCRIPTION - Aqueous primary dispersions (PD) essentially or completely free from volatile organic substances, containing dispersed and/or emulsified, solid and/or liquid polymer particles and/or dispersed solid core-shell particles with a particle diameter of not more than 500 nm, produced

by the radical micro- or mini-emulsion polymerisation of olefinically unsaturated monomer(s) in presence of hydrophobic additive(s) (HA) and oligomeric polyester(s) (OPES) with a number-average mol. wt. (Mn) of 150-1500, an OH number of 100-1000 mg KOH/g and an acid number of less than 20 mg KOH/g.

INDEPENDENT CLAIMS are also included for:

- (a) coating materials based on (PD) containing typical paint additives selected from colored and/or effect-giving, magnetically screening, electrically conductive and fluorescent pigments, metal powders, fillers, crosslinkers, initiators, diluents etc. (28 types of additives listed); and
- (b) a method for the production of (PD) by radical (co)polymerisation of olefinic monomer(s) in presence of (HA) and (OPES).

USE - The primary dispersions are used as (or for the production of) coating materials, adhesives or sealants, especially coating materials for painting cars (in production), painting buildings (inside and outside), painting doors, windows and furniture, industrial painting (including coil coating, container coating and the impregnation and/or coating of electrical engineering components) and painting white goods (including domestic appliances, boilers and radiators), especially in the form of clearcoats or aqueous basecoats for the production of colored and/or effect-giving multilayer paint systems (claimed).

ADVANTAGE - New aqueous primary dispersions with good storage stability and containing little or no volatile organic material, enabling the production of coating materials, adhesives or sealants with a very smooth surface, high gloss, a very good appearance, no haze, and high stability to light, weathering and chemicals, resulting in a long service life.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: AQUEOUS PRIMARY DISPERSE COATING ADHESIVE SEAL MATERIAL
OBTAIN

MICRO MINI EMULSION POLYMERISE PRESENCE HYDROPHOBIC
ADDITIVE
OLIGOMERISE POLYESTER

DERWENT-CLASS: A14 A28 A82 G02 U11 V04

CPI-CODES: A04-H00H; A05-E01D1; A07-A04D; A07-B; A10-B03; G02-A02B1;
G02-A02E;

G03-B02D; G03-B02E3; G04-B02;

EPI-CODES: U11-A07; V04-S15; V04-X01B;

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1]

018 ; G0022*R D01 D51 D53 D11 D10 D12 D13*R D18*R D02 D58 D59 D19
D18 D20 D32 D33 D34 D35 D76 D78 D69 7A*R F12 F75 F34 F00 F08 F07
F09 F10 ; G0340*R G0339 G0260 G0022 D01 D12 D10 D26 D51 D53 D58
D63 F41 F89 ; G0384*R G0339 G0260 G0022 D01 D12 D10 D26 D51 D53
D58 D63 F41 F89 ; G0022*R D01 D51 D53 F27 F26 F28 F29 F31 F30 F32
F33 F08 F07 F09 F10 D11 D10 F34 F15 ; G0022*R D01 D51 D53 D60 ;
G0577 G0566 G0022 D01 D12 D10 D51 D53 D58 D63 F41 F89 D11 D87 D88
D89 D90 D91 D92 D93 D94 ; G0373 G0340 G0339 G0260 G0022 D01 D12
D10 D26 D51 D53 D58 D63 F41 F89 D11 D91 D92 D93 D94 F27 F26 F34
; G0419 G0384 G0339 G0260 G0022 D01 D12 D10 D26 D51 D53 D58 D63
F41 F89 D11 D92 D93 D94 D95 F27 F26 F34 ; G0044*R G0033 G0022 D01
D02 D12 D10 D51 D53 ; G0088*R G0033 G0022 D01 D02 D13 D51 D53 ;
G0453*R G0260 G0022 D01 D12 D10 D26 D51 D53 F70 F93 D58 ; G0022*R
D01 D51 D53 D22*R D42 F47 ; G0102*R G0022 D01 D12 D10 D18 D51 D53
D02 ; G0022*R D01 D51 D53 F12 ; G0544*R G0022 D01 D12 D10 D51 D53
D58 D69 D82 7A ; G0555*R G0022 D01 D12 D10 D51 D53 D58 D69 D82 7A
; G0635 G0022 D01 D12 D10 D23 D22 D31 D41 D51 D53 D58 D75 D86 F71
; G0588*R G0022 D01 D12 D10 D51 D53 D58 F34 ; G0566*R G0022 D01
D12 D10 D51 D53 D58 D63 F41 F89 ; G0715*R G0022 D01 D12 D10 D51
D53 D58 D63 F89 F41 ; G0726*R G0715 G0022 D01 D12 D10 D27 D51 D53
D58 F34 ; G0533 G0260 G0022 D01 D12 D10 D26 D51 D53 D11 D58 F27
F26 F87 O* 6A ; G0022*R D01 D51 D53 G0817*R D54 G0986 G0975 D55
F81 H0204 ; S9999 S1025 S1014 ; S9999 S1478*R S1456 ; L9999 L2551
L2506 ; L9999 L2528 L2506 ; H0022 H0011 ; H0033 H0011 ; P0464*R
D01 D22 D42 F47 ; P1150 ; P1741 ; P0088

Polymer Index [1.2]

018 ; B9999 B5209 B5185 B4740 ; ND01 ; ND04 ; K9745*R ; K9483*R
; K9676*R ; Q9999 Q7114*R ; K9870 K9847 K9790 ; B9999 B4397 B4240
; Q9999 Q9234 Q9212 ; Q9999 Q9303 Q9212 ; N9999 N6439 ; K9449 ;
Q9999 Q7169 Q7158 Q7114 ; Q9999 Q6826*R ; Q9999 Q7307 ; Q9999

Q9358

; Q9999 Q6837 Q6826 ; Q9999 Q7716 Q7681 ; Q9999 Q7330*R ; Q9999
Q7681*R ; Q9999 Q7669 ; Q9999 Q6644*R ; Q9999 Q9007 ; B9999 B3532